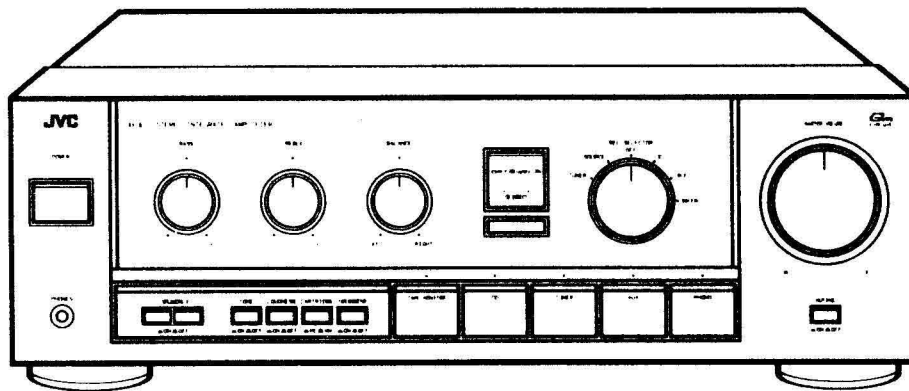


JVC

MODEL No. **AX-611BK**



Safety Precautions

1. The design of this product contains special hardware and may circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Service should be performed by qualified personnel only.
2. Alterations of the design or circuitry of the product should not be made. Any design alterations of the product should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacturer of responsibility for personal injury or property damage resulting therefrom.
3. Many electrical and mechanical parts in the product have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the Parts List of Service Manual. Electrical components having such features are identified by shading on the schematics and by (Δ) on the Parts List in the Service Manual. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement part shown in the Parts List of Service Manual may create shock, fire, or other hazards.
4. The leads in the products are routed and dressed with ties, clamps, tubings, barriers and the like to be separated from live parts, high temperature parts, moving parts and/or sharp edges for the prevention of electric shock and fire hazard. When service is required, the original lead routing and dress should be observed, and it should be confirmed that they have been returned to normal, after re-assembly.
5. Leakage current check (Electrical shock hazard testing)
After re-assembling the product, always perform an isolation check on the exposed metal parts of the product (antenna terminals, knobs, metal cabinet, screw heads, headphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.

Do not use a line isolation transformer during this check.

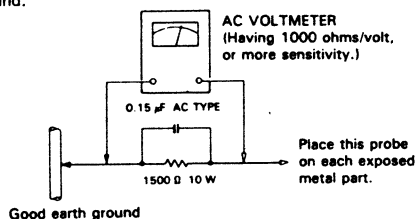
- Plug the AC line cord directly into the AC outlet. Using a "Leakage Current Tester", measure the leakage current from each exposed metal part of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground. Any leakage current must not exceed 0.5 mA AC (r.m.s.).

- Alternate check method

Plug the AC line cord directly into the AC outlet. Use an AC voltmeter having 1,000 ohms per volt or more sensitivity in the following manner. Connect a 1,500 Ω 10 W resistor paralleled by a 0.15 μ F AC-type capacitor between an exposed metal part and a known good earth ground.

Measure the AC voltage across the resistor with the AC voltmeter.

Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.75 V AC (r.m.s.). This corresponds to 0.5 mA AC (r.m.s.).



Warning

1. This equipment has been designed and manufactured to meet international safety standards.
2. It is the legal responsibility of the repairer to ensure that these safety standards are maintained.
3. Repairs must be made in accordance with the relevant safety standards.
4. It is essential that safety critical components are replaced by approved parts.
5. If mains voltage selector is provided, check setting for local voltage.

Specifications

AX-611BK OVERALL CHARACTERISTICS

Output power:

140 watts per channel into 4 ohms at 1 kHz (DIN)

90 watts per channel into 8 ohms at 1 kHz (DIN)

85 watts per channel, min. RMS, both channels driven, into 8 ohms from 20 Hz to 20 kHz, with no more than 0.007% total harmonic distortion (U.S.A. and Canada only)

85 watts per channel, min. RMS, both channels driven, into 8 ohms at 1 kHz with no more than 0.003% total harmonic distortion (measured by JVC Audio Analyzer System)

Total harmonic distortion	0.007% (20 Hz — 20 kHz, 8 ohms) at 85 watts
Intermodulation distortion	0.007% (60 Hz : 7 kHz = 4 : 1, 8 ohms) at 85 watts
Power band width	5 Hz — 50 kHz (IHF, 0.05%, 8 ohms both channels driven)
Frequency response	5 Hz — 80 kHz + 0, -3 dB (8 ohms)
Damping factor	90 (1 kHz, 8 ohms)
Input terminals impedance (1 kHz)	
PHONO (MM)	2.5 mV/47 kohms
PHONO (MC)	200 μ V/100 ohms
CD/AUX/	200 mV/43 kohms
TUNER/TAPE 1, 2	
Signal-to-noise ratio	
PHONO (MM)	85 dB ('66 IHF)
PHONO (MC)	66 dB ('66 IHF)
CD/AUX/	104 dB ('66 IHF)
TUNER/TAPE 1, 2	
PHONO (MM)	81 dB ('78 IHF)
(REC OUT)	
PHONO (MC)	73 dB ('78 IHF)
(REC OUT)	
CD/AUX/	76 dB ('78 IHF)
TUNER/TAPE 1, 2	
(SP OUT)	
PHONO (MM)	67 dB (DIN)
CD/AUX/	68 dB (DIN)
TUNER/TAPE 1, 2	
Tone controls	TREBLE: +8 \pm 1 dB — 8 \pm 1 dB (at 10 kHz)
	BASS: +8 \pm 1 dB — 8 \pm 1 dB (at 100 Hz)
Loudness controls	+6 dB (at 100 Hz)
(Volume control at -30 dB position)	

EQUALIZER

PHONO overload capacity
 PHONO (MM) : 100 mV (0.02% THD)
 PHONO (MC) : 8 mV (0.04% THD)
 PHONO RIAA deviation
 PHONO (MM) : ± 0.3 dB (20 Hz — 20 kHz)
 PHONO (MC) : ± 0.5 dB (20 Hz — 20 kHz)

Recording output
 Output level/impedance
 TAPE REC-1, 2 : 200 mV/Maximum 1 kohms

GENERAL

Dimensions : 435 (W) x 147 (H) x 356 (D) mm
 (17-3/16" x 5-13/16" x 14-1/16")

Weight : 10.2 kg (22.5 lbs.)

Design and specifications subject to change without notice.



OPEN-AIR STEREO HEADPHONES HA-CD7
 The JVC HA-CD7 Open-Air high-quality Stereo Headphones (optionally available) are recommended for use with this unit.

POWER SPECIFICATIONS

Areas	Line voltage & frequency	Power consumption	
		AX-611BK	
U.S.A.	AC 120 V ~, 60 Hz		440 watts/ 560 VA
Canada			
U.K.	AC 240 V ~, 50 Hz		770 watts
Australia			
Continental Europe	AC 220 V ~, 50 Hz		320 watts
Other areas	AC 110/127/220/240 V ~ selectable, 50/60 Hz		

TROUBLESHOOTING

What appears to be a malfunction may not always be serious.
 Make sure first . . .

No sound and no light

Is the AC plug connected properly?
 Are the connections made correctly?

No sound from speakers

Are speaker cords connected?
 Are the SPEAKERS buttons correctly set?
 Is the VOLUME control properly set?
 Is your source component correctly set?

Sound from one speaker only

Are speaker cords connected correctly?
 Is BALANCE control set to one extreme or the other?

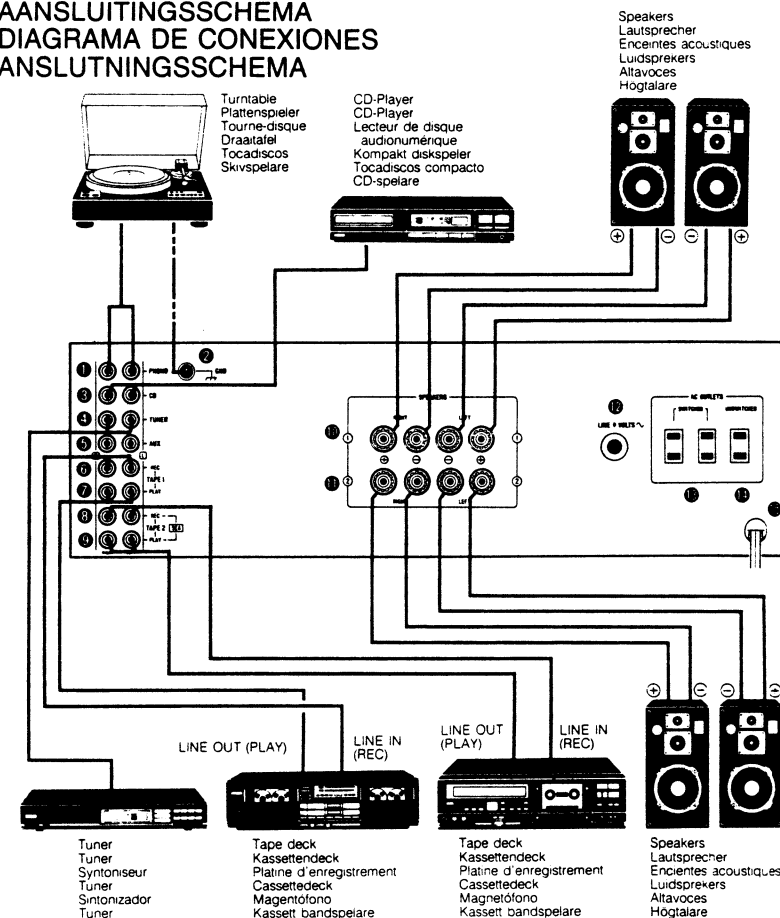
Loud hum during record playing

Is turntable grounded?
 — Try to change cord path.

Howling noise during record playing

Is turntable too close to a speaker?

CONNECTION DIAGRAM ANSCHLUSSDIAGRAMM SCHEMA DE RACCORDEMENTS AANSLUITINGSSCHEMA DIAGRAMA DE CONEXIONES ANSLUTNINGSSCHEMA

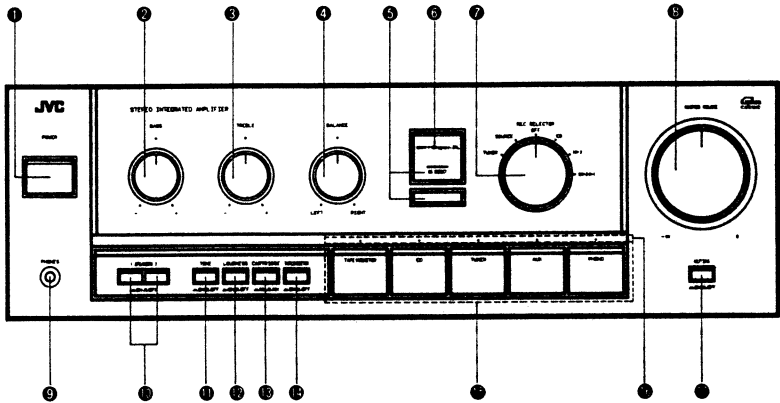


REAR PANEL

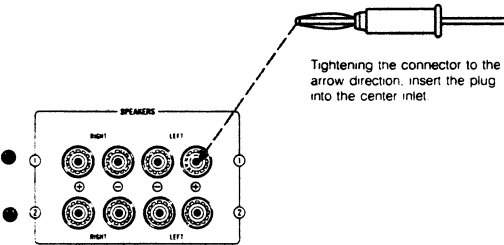
- PHONO terminals
 - GND terminal
 - If your turntable has a ground lead, connect it to the GND terminal
 - CD terminals
 - TUNER terminals
 - AUX terminals
 - TAPE 1 REC terminals
 - TAPE 1 PLAY terminals
 - TAPE 2 REC terminals
 - TAPE 2 PLAY terminals
 - SPEAKERS 1 terminals
 - SPEAKERS 2 terminals
 - AC line voltage selector (LINE 1 VOLTS ~)*
 - SWITCHED AC OUTLETS**
 - UNSWITCHED AC OUTLET**
 - Power cord
- (*Not provided on units for U.S.A., Canada, Continental Europe, the United Kingdom and Australia.)
(**Not provided on units for Continental Europe, the United Kingdom and Australia.)

- Notes:
1. Switch the power off when connecting any component.
 2. Connect source components with left and right channels connected correctly. Reversed channels may degrade the stereo effect.
 3. Connect speakers with correct polarity; (+) to (+) and (-) to (-). Reversed polarity may degrade the stereo effect.
 4. Connect plugs or wires firmly. Poor contact may result in hum.
 5. Do not connect the power plugs of components which have a total power consumption exceeding the value indicated on the rear panel.
 6. Use speakers with the correct impedance. The correct impedance is indicated on the rear panel of the AX-511BK/AX-611BK.
 7. The SWITCHED AC outlets are switched off when the front-panel POWER button is switched off.
 8. The UNSWITCHED AC outlet is not switched off when the front-panel POWER button is switched off.

FRONT PANEL
FRONTPLATTE
Panneau AVANT
VOORPANEEL
PANEL DELANTERO
FRAMPANEL



Connecting to speaker terminals with BANANA plug.
(Only for USA and Canada)



FRONT PANEL

These instructions are prepared for two models: AX-511BK/AX-611BK.
Therefore, read the items below concerning each model.

● POWER

Press this button to turn the power on.
To turn the power off, press it again.

Notes:

- When power is not supplied to this amplifier for 2 — 3 days, the source select button pressed before the power was switched off may be lost when the power is switched on again. If this happens, set the buttons, etc. again.
- An electronic source selector is used in this unit. When the POWER button is first switched on, two or more sources or no source may be selected. Make sure to input the source select data by pressing one of the source selectors.
- If the POWER button is pressed repeatedly to switch on and off too quickly, the same phenomenon as the above will occur.

● BASS

Turn clockwise to boost bass response and counterclockwise to decrease it.

● TREBLE

Turn clockwise to boost treble response and counterclockwise to decrease it.

● BALANCE

Balances the volume between the left and right speakers. Usually set it to the center click position.

● CD DIRECT and indicator

Press this button to enjoy listening to the CD with good sound quality. The indicator lights and the signal fed from the CD terminals is directly connected to the volume, bypassing the circuits on the way, thus allowing you to enjoy listening to an improved sound quality.

Note:

- While the CD DIRECT button is pressed, the reproduced sound does not change even if the source selector (including TAPE 2 MONITOR) and BALANCE volume are operated, press the CD DIRECT button again to turn the indicator off when using these.

● CD DIRECT indicator

Pressing the POWER button to on, this indicator lights.

● REC SELECTOR

TUNER: Set to this position to record broadcasts while listening to another source.

SOURCE: Set to this position to record from sources connected to the PHONO, CD, TUNER or AUX terminals.

OFF: Set to this position when you are not recording or dubbing.

CD: Set to this position to record CD while listening to another source.

1 ► 2: Set to this position to dub from the deck TAPE 1 to TAPE 2.

S ► 2 ► 1: Set to this position to dub from the deck TAPE 2 to TAPE 1 and record the source selected with the SOURCE SELECTOR onto the deck TAPE 2.

● MASTER VOLUME



Controls the volume of the speakers and headphones.

● PHONES (Headphones jack)


Plug stereo headphones into this jack for private listening.


If you want to listen to sound from the headphone only, press the SPEAKERS buttons to "OFF".

● SPEAKERS

Press to switch the speakers connected to the SPEAKERS 1 or 2 terminals on () and off ().


● TONE

ON (): Press to adjust the tone with the BASS and TREBLE controls.


DEFEAT (): Press to this position to obtain a standard (flat) frequency response.


● LOUDNESS

ON (): To compensate for the ear's lower sensitivity at low listening levels.


OFF (): To bypass the LOUDNESS circuit.


● CARTRIDGE

MC (): Press in when using an MC cartridge having an output of less than 0.5 mV.

MM (): Press again when using an MM or MC cartridge having an output of more than 0.5 mV.

● TAPE 2 MONITOR

ON (): Set to this position to listen to the tape deck connected to the TAPE 2 terminals of this unit. If your tape deck is of the 3-head type, you can monitor the recorded sound while recording by setting this button to ON.

OFF (): Keep this button set to this position except when you want to listen to the tape deck connected to the TAPE 2 terminals of this unit.

● Source selector TAPE 1 MONITOR

Press to listen to a tape deck connected to the TAPE 1 terminals.

CD

Press to listen to the source connected to the CD terminals.

TUNER

Press to listen to radio broadcasts by a tuner connected to the TUNER terminals.

AUX

Press to listen to the source connected to the AUX terminals.


PHONO


Press to listen to records played by a turntable connected to the PHONO terminals.

● Source indicator

The indicator corresponding to the source select button pressed lights.

● MUTING (AX-611BK only)

ON (): Press to mute the sound (−20 dB). Use this button when answering the telephone, for example.

OFF (): Press again to return the volume level to that adjusted with the MASTER VOLUME control.

OPERATION


Before operation, always be sure to set VOLUME at minimum.

When the volume is increased after selecting a source position with no equipment connected to the input terminal, other connected devices (such as speakers) may be adversely affected by external noise and inductive hum.


Listening to broadcasts

1. Connect a tuner to the TUNER terminals on the rear panel.
2. Press the POWER button on.
3. Press the TUNER button and make sure that the TAPE 1 MONITOR and TAPE 2 MONITOR buttons are set to off.
4. Select the speaker system with the SPEAKERS switches.
5. Operate the tuner according to its instruction manual.
6. Adjust the VOLUME, LOUDNESS, BALANCE and BASS/TREBLE controls.

Listening to records

1. Connect a turntable to the PHONO terminals on the rear panel.
2. Press the POWER button on.
3. Set the CARTRIDGE () button of this unit according to the cartridge in use.
4. Press the PHONO button and make sure that the TAPE 1 MONITOR and TAPE 2 MONITOR buttons are set to off.
5. Select the speaker system with the SPEAKERS switches.
6. Operate the turntable according to its instruction manual.
7. Adjust the VOLUME, LOUDNESS, BALANCE and BASS/TREBLE controls.

Listening to tapes

1. Connect a tape deck to the PLAY terminals of TAPE 1 or TAPE 2.
2. Press the POWER button on.
3. Press the TAPE 1 MONITOR button to play back the TAPE 1 deck. For playback of the TAPE 2 deck, press the TAPE 2 MONITOR button to ON ().
4. Select the speaker system with the SPEAKERS switches.
5. Operate the tape deck for playback according to its instruction manual.
6. Adjust the playback sound controls as required.

Note:

- Do not place the tape deck directly on the amplifier, because it may cause the amplifier to malfunction.

Using stereo headphones

Stereo headphones can be plugged into the front panel jack. Plugging headphones into the PHONES jack does not switch off the speaker sound.

Recording tapes

— Recording from records —

1. Connect a tape deck to the REC terminals of the TAPE 1 or TAPE 2 terminals.
2. Press the POWER button on.
3. Select a speaker system if you wish to hear the sound while recording.
4. Press the PHONO button.
5. Operate the turntable.
6. Operate the tape deck for recording.

— Recording from other sources (TUNER, CD, AUX) —

Press the TUNER, CD or AUX button to record radio broadcasts, or the source connected to the CD, AUX terminals.
All other operations are identical to when recording from disc source.

Note:

- To record from CD, turn the source selector to "CD". It is possible to monitor the high quality sound by pressing the CD DIRECT button. When monitoring other sources while recording, press the CD DIRECT button again to turn the indicator off.

— Recording from other sources (PHONO, TUNER, AUX) while listening to the CD —

1. Select the source that you wish to record to from among the PHONO, TUNER and AUX button.
2. Operate the tape deck for recording.
3. Press the CD DIRECT button.

Tape dubbing

Dubbing from the TAPE 1 to TAPE 2 is carried out as follows:

1. Press the TAPE 1 MONITOR button.
 2. Play back the TAPE 1 deck.
 3. Operate the TAPE 2 deck for recording.
- You can perform tape dubbing while listening to the CD by pressing the CD DIRECT button in addition to the above operations.

Notes:

- The sound you hear from the speakers or headphones is the source sound, not that being recorded on the tape.
- The VOLUME control of this amplifier has no effect on the recording level. Adjust the recording level with the controls on the tape deck.

How to operate the monitor while recording on the tape deck

1. Connect a 3-head tape deck to the TAPE 1 or TAPE 2 terminals.
2. Make sure to connect the signal cords to the PLAY and REC terminals.
3. Select the source from which you want to record by depressing the source select button on this unit.
4. Operate the tape deck for recording as described in its operating manual.
5. By playing the source component, you can record on the tape deck.
6. While recording on the tape deck, the recorded sound can be heard by depressing the TAPE 1 MONITOR or TAPE 2 MONITOR button on this unit.

Use of S.E.A. Graphic Equalizer

The S.E.A. Graphic Equalizer is JVC's exclusive tone control system. By allowing you to independently boost or lower the response of finely divided sections of the frequency spectrum: the S.E.A. gives you much greater control over the sound quality of your stereo system. With an optionally available S.E.A. Graphic Equalizer, you can tailor the sound to your own taste for different types of music or to compensate for the particular acoustic characteristics of your audio components and listening room.

The TAPE 2 terminals of the AX-511BK or AX-611BK can be used for connecting the S.E.A. Graphic Equalizer.

Note:

- Even if the S.E.A. Graphic Equalizer is operated while the CD DIRECT button is pressed, reproduced sound is neither adjusted nor compensated. When using the S.E.A. Graphic Equalizer, press the CD DIRECT button once again to turn the indicator off.